#### Dear Colleagues,

In November 2003, the 1<sup>st</sup> International GPM GV Requirements Workshop was held in Abingdon, UK to begin the planning for and development of an international network of GPM GV sites.

At the first workshop we completed the definition plan of broad set of scientific objectives and requirements which motivates the international GPM GV research program and the operation of the network of GV sites.

The fundamental scientific objectives driving the international GV Research Program are:

- 1. establish quantitative uncertainties in GPM satellite precipitation retrievals,
- 2. develop improved satellite precipitation retrieval algorithms,
- 3. seek better understanding of the underlying macro- and micro-physics of precipitation life cycles.

To help achieve these objectives, a subset of the GV sites will operate as GV Supersites, which will require routine communications with GPM's central Precipitation Processing System (PPS) at the NASA/Goddard Space Flight Center under a TBD standard protocol.

Resulting from this first workshop, a report was generated, Report of 1<sup>st</sup> International GPM GV Requirements Workshop. It is available for you to retrieve at GPM GV web site: <a href="http://gpm.gsfc.nasa.gov/workshops.html">http://gpm.gsfc.nasa.gov/workshops.html</a>, The 1<sup>st</sup> International GPM GV Workshop, Workshop Report.

The 1<sup>st</sup> workshop was hosted by John Goddard and Carron Wilson on behalf of Rutherford Appleton Laboratory, UK. The reason for holding this 1<sup>st</sup> Workshop in England was to establish the precedent that future International GPM GV Workshops will be hosted by interested potential participants and their affiliated institutions.

Professor Ming-Dah Chou of the National Taiwan University (NTU) has offered to host the 2<sup>nd</sup> workshop in **Taipei**, **Taiwan** from September 27 – 30, 2005. [The last day of the workshop will involve a site visit to the Central Weather Bureau (CWB) observation station in Hualien (eastern side of Taiwan)]. The meeting will be co-hosted by the CWB, National Central University (NCU), and the National Applied Research Laboratories (NARL). A Program Committee consisting of Prof. Chou, Prof. Liu Gin-Ron of NCU, Dr. Chi Shui-Shang of CWB, Dr. Paul Hwang of NASA/Goddard Space Flight Center in the USA, Dr. Alberto Mugnai of CNR/ISAC in Italy, Prof. Kenji Nakamura of Nagoya University in Japan, and myself have developed an invitation list and are now developing a preliminary agenda and logistics plan for the workshop. Although this is a "by-invitation only" meeting, the Program Committee will be flexible in inviting other participants list.

The objectives of the 1<sup>st</sup> Workshop were to define a set of broad science requirements under which the GV site network can be developed. The 2nd Workshop has three major objectives:

- 1. Identify Algorithm Developer's Needs/Wishes from GV Program.
- 2. International GV Site Network using System Engineering Principles

# 3. Accumulation of Experience from Existing Sites to Ensure Realistic GV Site Network Plan.

See attachment for more details.

On behalf of the Program Committee, I am cordially inviting you to participate in this 2nd International GPM GV Planning Meeting. Please contact Dr. Paul Hwang at <paul.h.hwang@nasa.gov> or + 301-286-6969 or Prof. Ming-Dah Chou at <mdchou@atmos1.as.ntu.edu.tw> or 886-2-2362-5896 concerning your availability and willingness to attend. In the coming weeks, Prof. Chou will be posting the logistics information, a preliminary agenda, and other necessary meeting information on a dedicated web site. At that time, you will receive a second email alerting you to the web site's URL address. Final email reminders will be sent in mid July and early September. In the meantime, please mark your calendars if you are planning or are tentatively planning to attend.

If you have any questions or comments, please do not hesitate to contact Prof. Chou or Dr. Hwang, or if needed, other members of the Program Committee. The relevant email addresses are given below.

My best regards on behalf of the Program Committee,

Eric A. Smith, NASA Project Scientist for GPM Mission

#### Attachment:

#### A. WORKSHOP OBJECTIVES

#### 1. Identify Algorithm Developer's Needs/Wishes from GV Program.

Algorithm developers will need a variety of rain rate measurements on the ground for direct comparison to their algorithm estimates, and also additional *in situ* measurements (e.g., cloud micro-physics detectors, ground radiometer, ground radar, disdrometers, state parameter sensors, etc.) to improve the physical formulations of the algorithms.

## 2. International GV Site Network using System Engineering Principles

There are three types of GV sites: (1) Standard Sites, (2) Supersites, and (3) Regional (Virtual) Sites. They will be funded and managed by various institutions for specific purposes. But in order to ensure successful GV research program, we will have to develop a plan to manage these individual site for "GPM GV needs" as a "System of Sites". It is likely that this "Site System" should be developed using principals of "System Engineering".

3. Accumulation of Experience from Existing Sites to Ensure Realistic GV Site Network Plan.

We must conduct the planning based on the strength of the participating individuals and institutions.

### B. PROGRAM COMMITTEE

< chi@cwb.gov.tw> 1. Shui-Shang Chi

2. Ming-Dah Chou <mdchou@atmos1.as.ntu.edu.tw> <paul.h.hwang@nasa.gov>
<grliu@csrsr.ncu.edu.tw> 3. Paul Hwang 4. Gin-Ron Liu

<a.mugnai@isac.cnr.it>
<nakamura@ihas.nagoya-u.ac.jp>
<eric.a.smith@nasa.gov> 5. Alberto Mugnai6. Kenji Nakamura

7. Eric A. Smith